Place Value Concepts

People use numbers to represent **quantities**, or how much of something they have. Numbers are made up of **digits**. It is important for us to understand the **relationship** between **digits** and their **positions** within numbers so that we can use them more easily.

Vocabulary	
Number	A symbol that represents a quantity that can be used in mathematics.
Digit	A numeral, between 0 – 9, that is used to make numbers.
Position	The place in a number that helps determine a digit's value.
Value	The amount a digit is worth.

5,735

This is a number. This number is made up four digits

5 – 7 – 3 – 5

These digits each have different values based on their position. Let's determine their positions.

Thousand's Place	Hundred's Place	Ten's Place	One's Place
Digit	Digit	Digit	Digit
Value	Value	Value	Value

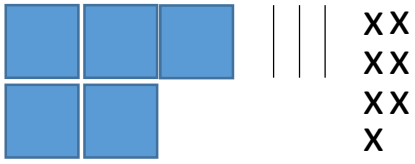
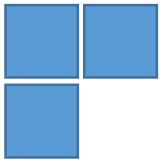
Things to remember or think about:

1. The digit "0" is used as a place holder. It has no value, regardless of its position within a number.
2. When looking at a number, ask yourself, "How many digits does this number have?"
3. When looking at a number, point at a digit and ask, "What position is this digit in?"
4. When looking at a number, point at a digit and ask, "What is the value of this digit?"

Representing Numbers

Numbers can be **represented** in different ways **without changing** the their **values**. Depending on the type of **mathematics** you are using, some representations are more **effective** or **efficient** than others.

Vocabulary	
Standard Form	Representing a number with digits in specific positions.
Written Form	Representing a number with words that describe value.
Expanded Form	Representing a number as an addition problem showing the value of each digit.
Model Form	Representing a number with base 10 blocks.

Model Form	Standard Form
1 	1 537
2	2 649
3  xx	3 302
Expanded Form	**Written Form**
1	1 Five hundred thirty-seven
2 600 + 40 + 9	2 Six hundred forty-nine
3 500 + 30 + 7	3

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Notes

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